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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/385,394	08/30/1999	JOHN S. YATES JR.	30585/3	9093

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EXAMINER

ELLIS, RICHARD L

ART UNIT

PAPER NUMBER

2183

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Please find below and/or attached an Office communication concerning this application or proceeding.

24



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Below is a communication from the EXAMINER in charge of this application

COMMISSIONER OF PATENTS AND TRADEMARKS

ADVISORY ACTION

☒ THE PERIOD FOR RESPONSE:

- a) ☒ is extended to run 5 months or continues to run _____ from the date of the final rejection
- b) ☐ expires three months from the date of the final rejection or as of the mailing date of this Advisory Action, whichever is later. In no event however, will the statutory period for the response expire later than six months from the date of the final rejection.

Any extension of time must be obtained by filing a petition under 37 CFR 1.136(a), the proposed response and the appropriate fee. The date on which the response, the petition, and the fee have been filed is the date of the response and also the date for the purposes of determining the period of extension and the corresponding amount of the fee. Any extension fee pursuant to 37 CFR 1.17 will be calculated from the date of the originally set shortened statutory period for response or as set forth in b) above.

☐ Appellant's Brief is due in accordance with 37 CFR 1.192(a).

☒ Appellant's response to the final rejection, filed 3/24/2003 has been considered with the following effect, but it is not deemed to place the application in condition for allowance:

1. ☐ The proposed amendments to the claim and/or specification will not be entered and the final rejection stands because:
- ☐ There is no convincing showing under 37 CFR 1.116(b) why the proposed amendment is necessary and was not earlier presented.
 - ☐ They raise new issues that would require further consideration and/or search. (See Note).
 - ☐ They raise the issue of new matter. (See Note).
 - ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal.
 - ☐ They present additional claims without cancelling a corresponding number of finally rejected claims.

NOTE:

2. ☐ Newly proposed or amended claims _____ would be allowed if submitted in a separately filed amendment cancelling the non-allowable claims.

3. ☐ Upon the filing an appeal, the proposed amendment ☐ will be entered ☐ will not be entered and the status of the claims will be as follows:

Claims allowed: _____

Claims objected to: _____

Claims rejected: _____

However;

☐ Applicant's response has overcome the following rejection(s): _____

4. ☒ The affidavit, exhibit or request for reconsideration has been considered but does not overcome the rejection because See attached.

5. ☐ The affidavit or exhibit will not be considered because applicant has not shown good and sufficient reasons why it was not earlier presented.

☐ The proposed drawing correction ☐ has ☐ has not been approved by the examiner.

☐ Other

RICHARD L. ELLIS

1. This is in response to applicant's **third** request for withdrawal of finality of the last office action, received via email March 23, 2003 4:52PM (copy attached).
2. Summary: Applicant's request is not convincing, the final rejection **stands**, and the shortened statutory period set in paper number 11 **remains** in effect and is set to expire April 1, 2003.

Detailed Explanations:

3. That claim 22 claims a different mode of operation than that disclosed by Richter et al. Applicant's arguments now newly focus on a portion of the claim language which states:

"to create a program context under the second data storage convention that is logically equivalent to a pre-alteration program context under the first data storage convention"

Part of the disagreement appears to relate to the meaning of "program context" as used in the claims. From *Webster's Ninth New Collediate Dictionary*, (Merriam-Webster, Inc., 1990), the definition of "context" is:

context 1 : the parts of a discourse that surround a word or passage and can throw light on it's meaning
2 : the interrelated conditions in which something exists or occurs

As applicant's system is a computer processor, the first meaning relating to words surrounding a passage is not applicable to "program context". However, the second meaning of the word context is applicable to the claimed "program context", in that it is the "interrelated conditions in which something exists or occurs".

Accordingly, in regards to Richter et al., from applicant's arguments on page 2 of the attached request, applicant states the given that data in internal processor registers is always big-endian in storage format. Accordingly, Richter et al. when operating in a mode with big-endian data in memory (col. 9 lines 17-27, big-endian) will not have to modify the "interrelated conditions in which something (the executing program) exists or occurs" because the external data representation (big-endian) is the same as the internal data representation (big-endian). However, as clearly taught by Richter et al., data is often stored in an opposite representation in memory (col. 9 lines 17-27, little-endian). Richter et al. also discusses transitioning between RISC and CISC modes throughout his entire specification, and at col. 9

lines 17-27 makes mention of the fact that RISC data structures often differ from CISC data structures. Therefore, let's assume that this first mode is a RISC mode, with big-endian data in memory. Now, Richter et al.'s system makes a call to CSIC code (little-endian data) or to RISC code with a little-endian data representation (col. 5 lines 55-67). At this point, as taught by Richter et al. (col. 9 lines 17-27), the external data differs from the internal data, and Richter et al. must convert that external data from little-endian representation into an internal big-endian representation in order to utilize it in a processor that is always big-endian internally. Therefore, the "interrelated conditions in which something exists or occurs" has been altered (from "no conversion necessary") to a different "interrelated conditions in which something exists or occurs" (to "conversion necessary"). Therefore, a "program context" ("interrelated conditions in which something exists or occurs") has been created that is logically equivalent to the pre-alteration program context because the processor continues to see big-endian data internally, even though the external representation has changed.

4. Part III - Claim 87

Applicant argues that the rejection of claim 87 would no longer apply due to the understanding of claim 22 because claim 87 recites "before executing the destination instruction". However, applicant is referred to (col. 5 lines 65-67) which state that the operational mode in Richter et al. is indicated when the jump or change occurs, not after.

5. Part IV - Claim 51

That the office action equates "page" with "segment" and that such is an improper equate, and requests documentary evidence of such equality in accordance with MPEP 2111.01.

Applicant is referred to the *Dictionary of Computers, Information Processing & Telecommunications*, Second Edition, Jerry M. Rosenberg, John Wiley & Sons, Inc. publisher, 1987, which states in pertinent part:

page (PG) (1) a block of instructions, or data, or both, that can be located in main storage or in auxiliary storage. Segmentation and loading of these blocks is automatically controlled by a computer. (A)

segment (SEG) (1) a self-contained portion of a computer program that may be executed without the entire computer program necessarily being maintained in internal storage at any one time. (B)

Accordingly, as seen by the Rosenberg dictionary, a "page" is "a block of instructions, or data, or both", and a "segment" is "a self-contained portion of a computer program". A "block of instructions, or data, or both" is equivalent to "a self-contained portion of a computer program.

6. Part V - calling convention

That various claims recite conversion from one calling convention to another and that there is no discussion of this in either office action.

Applicant's attention is directed to the first office action, paper number 8, mailed February 20, 2002 in paragraphs 16 and 17 where exactly this feature was addressed.

7. Part VI - Subpart A

That claim 29 was not discussed in either office action.

Applicant is again referred to the first office action at paragraph 16.

8. Part VI - Subpart B

That withdrawal of the rejection of claim 104 requires that finality be withdrawn.

Applicant is incorrect, the fact that applicant was able to argue convincingly that Richter et al. did not read upon claim 104 is only grounds for withdrawal of the rejection of claim 104, not for withdrawal of the rejection and finality thereof of all other claims.

9. Part VI - Subpart C & D

That claims 87, 27, 59, and 103 since it's filing has recited steps occurring "before executing the destination instruction"

Applicant's attention is drawn to paragraph 4 in relation to part III - claim 87 above.

10. Part VI - Subpart E

That the office actions did not clearly set forth the reasons for rejection.

The Examiner believes that the office actions, when read by one of ordinary skill to which the art pertains, would be immediately and readily understandable as to how the Richter

et al. reference anticipates or renders obvious applicant's claims.

11. Part VI - Subpart F

That no showing of reasonable expectation of success was provided.

This is in fact the third time that Applicant has repeated this same argument. The bulk of applicant's discussion in section F in this request appears to border on arguing the possible enablement of the Richter et al. reference to operate as it was intended to operate. By statute US Patents have a presumption of validity and enablement (37 USC § 282). Therefore, there is a reasonable expectation of success from the Richter et al. disclosure that it will operate, and that it's teachings produce the expected result.

12. Part VI - Subpart G

That neither office action has shown the claimed "calling convention" methods.

Applicant's attention is drawn to paragraphs 16 and 17 of the first office action.

13. Part VI - Subpart H

That claims 31, 52, 64, 70, and 90 recite that certain information is found in certain table entries and element 33 of figure 3 is not stored in Richter's TLB (element 96).

In this case, applicant is applying an unduly narrow definition of TLB. The acronym TLB stands for (T)ranslation (L)ookaside (B)uffer, and it is simply a small buffer used to store the most recently utilized memory mapping description data for quick lookup.

translation buffer A set of registers in a memory management unit in which virtual addresses are converted to physical addresses. *Note:* Typically the complete map of translation will not fit into the memory management unit at one time so only a portion are buffered there while the entire map is in main storage. *The Authoritative Dictionary of IEEE Standard Terms*, Seventh Edition, Standards Information Network, IEEE Press, 2000.

As element 33 of Richter's figure 3 is storing the most recently utilized memory mapping description data for quick lookup, and therefore is operating and functioning as a TLB, even if Richter et al. did not label it as such.

14. Part VI - Subpart I

That claims 81 and 122 recite "mapping" and this word is not found in paper number 8

paragraph 7.

The measure of patentability is not the presence or absence of a "word" from the reference, but rather it is the presence/absence of the meaning of that word. In the case of these claims, the meaning of "mapping" is equivalent to the prior claims "altering a data storage content". As such, Richter also teaches these claims.

15. Part VI - Subpart J

That claims 72, 109, and 115 recited an off-the-shelf operating system and that such is not shown in Richter et al.

Applicant's attention is drawn to col. 9 lines 43-46 where Richter et al. specifically references both DOS (MS-DOS) (TM) or Windows (TM). Both of which would be considered to be the epitome of an off-the-shelf operating system.

16. Part VI - Subpart K

That only a broader interpretation of claim 22 was rejected, not the narrower interpretation used by applicant in regards to the "altering storage" claim limitation of claim 22.


It should be noted that claims are rejected based upon their broadest interpretation, not their narrowest interpretation. Additionally, it should be noted that the "altering storage" limitation of the claim has been addressed four times now, first in the first office action, again in the finality, and twice again in two of applicant's inquiries.

17. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Richard Ellis whose telephone number is (703) 305-9690. The Examiner can normally be reached on Monday through Thursday from 7am to 5pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Eddie Chan, can be reached on (703) 305-9712. The fax phone numbers for this Group are: After-final: (703) 746-7238; Official: (703) 746-7239; Non-Official/Draft: (703) 746-7240.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Richard Ellis
March 24, 2003


Richard Ellis
Primary Examiner
Art Unit 2183